

## Immunology-Final-2011

*Note: some of the question are answered, keep in mind that those answers are not absolutely correct, so it's better to verify and make sure about them..*

All the following about sirolimus is true except :

- 1- bind immunophylline FK506-binding protein 12
- 2- inhibit interleukin driven T&B CELL proliferation
- 3- available as oral & topical administrations
- 4- sirolimus eluting coronary stents
- 5- the sirolimus coronary stents are more effective than aspirin in inhibiting platelet aggregation

All are true about IL-3 except :

- 1- produced by macrophages
- 2- maintain stem cell & early progenitors
- 3- doesn't appear to induce proliferation
- 4- induces proliferation
- 5- bind to special receptors on progenitors

main site for response to blood-borne antigens is :

- 1- spleen
- 2- bone marrow
- 3- lymph nodes
- 4- circulation
- 5- thymus

all of the following is true about natural antibodies :

- 1- of IgM type
- 2- produced by B-1 cells
- 3- lack of physiologic role
- 4- low affinity & ..
- 5- broad specificity & extensive ...

all are true about innate immunity except :

- 1- same intensity
- 2- changes with age
- 3- immediate
- 4- steady during the reaction
- 5- without memory

macrophages secrete all these soluble mediators except :

- 1- IL-1
- 2- IL-6
- 3- IL-8
- 4- IL-13
- 5- TNF a



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all complement receptors bind to :

- 1- c3b
- 2- c3d
- 3- c5b
- 4- c4...

autoimmunity is:

- 1- normal
- 2- somatically acquired
- 3- reflect the failure of the main mechanisms of tolerance
- 4- rare
- 5- always reflects pathogenesis

one of the following is not mediated by AB :  
celiac disease

NKCs ,, all are true except :

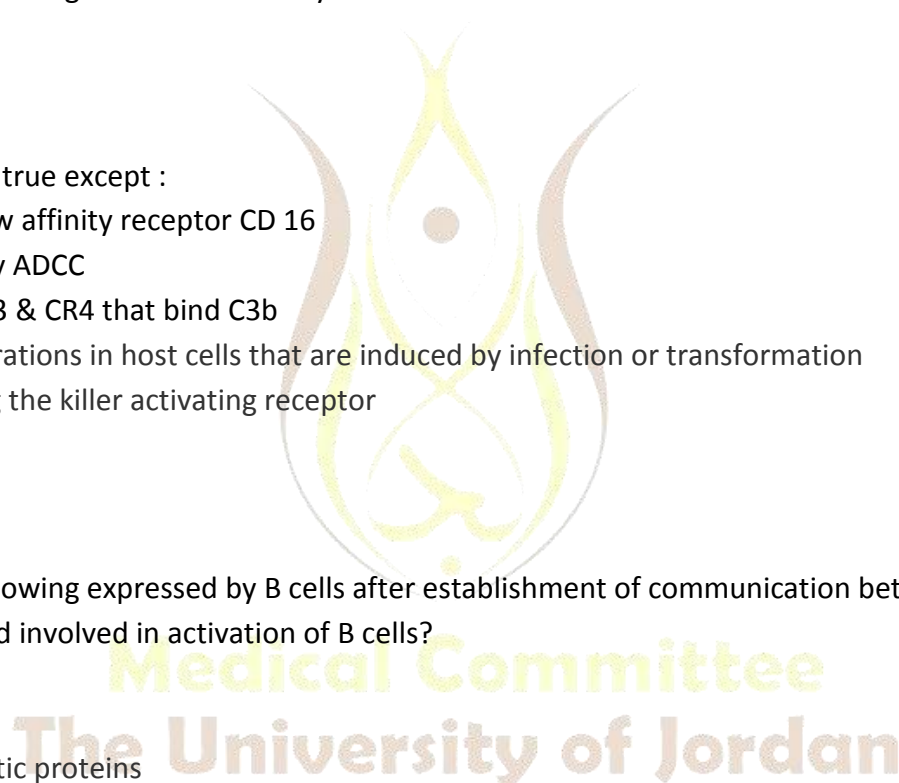
- 1- uses the low affinity receptor CD 16
- 2- they lyse by ADCC
- 3- express CR3 & CR4 that bind C3b
- 4- detect alterations in host cells that are induced by infection or transformation
- 5- it kills using the killer activating receptor

one of the following expressed by B cells after establishment of communication between T cells and B cells and involved in activation of B cells?

1. CD80/86
2. CD40
- 3- antiapoptotic proteins
- 4- IL2R
- 5- IL4R

one of the following does not belong to type 3 hypersensitivity rxn :

- 1- Goodpasture syndrome
- 2- glomerulonephritis
- 3- vasculitis
- 4- SLE
- 5- RA



all of the following are the result of expression of pre-TCR except:

- 1- stop farther beta chain gene rearrangement
- 2- induce cell proliferation
- 3- CD4 & CD8 induction
- 4- alpha chain start transcription
- 5- start of negative selection

one of the following prefers immune response over tolerance :

- 1- subcutaneous administration
- 2- high doses
- 3- improperly processed antigen
- 4- soluble, simple small molecules
- 5- immunologically immature.

one of the following is expressed on the MHC III REGION :

- 1- tapasin
- 2- HLA f, g, h
- 3- DMB . DMA
- 4- MICB, MICA
- 5- TAP

all the following is true about glucocorticoids except :

- 1- anti-inflammatory
- 2- lympholytic activity
- 3- Catalytic for IgG
- 4- inhibit TNF alpha effect

the most imp. contributor in generating Ig Diversity :

- 1- junctional diversity
- 2- combinational diversity
- 3- somatic hypermutation
- 4- allelic exclusion
- 5- germ line diversity



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which primary immuno deficiency is associated with deficieny in CD27 - CD134 ?

Common Variable Immuno Deficiency

Immunonephlometry ,,all are true except :

- 1- detects light scattered at 90 degrees
- 2- amount of light is proprtional to the Ab-Ag complexes formed
- 3- uses both precipitation & electrophoresis
- 4- detect pico and nano grams of analyte
- 5- used to detect microcomplexes



the main biological function of histamine & leukotrienes

- 1- bronchoconstriction & vasodilation
- 2- activation of leukocytes
- 3- activation of ...

the principal pathological findings in hyperacute rejection are due to :  
type 1 endothelial activation

regarding clinical transplantation which of the following combination is not true:

- 1- skin transplantation: T-cell mediated
- 2- corneal transplantation: no need for immunosuppression
- 3- kidney transplantation: hyperacute rejection
- 4- bone marrow transplantation: GVHD
- 5- liver transplantation: no influence of HLA matching on long term survival

chief contributor to tissue damage that occur during type 1 hypersensitivity rxn :  
eosinophils

Defective DNA repair and chromosomal breakages:  
Ataxia Telangiectasia

In Tumor immunology, CEA is not involved ( or is not indicated to use as a marker) in which of the following:

- 1-Monitoring response to therapy
- 2-Detection of tumor recurrence
- 3-Staging and prognosis
- 4-Detection of Metastasis

Which one of the following is wrong:

1. functional fucosyltransferase is responsible for the expression of A and B antigen
2. O gene codes for H substance

which is of the following is not an evidence of tolerance

- 1- immune response to non-inherited maternal antigen
- 2- acceptance of mutual skin graft by DZ clones
- 3- long established intrauterine infection
- 4- neonatal injection of antigen result in acceptance of allograft
- 5- no immune response when the antigen is administered with its antibody

Non-characteristic of MHC molecules:

Same class 1 and class 2 MHC molecules are produced at all cells

an essential signal transduction molecule in the T-cell signaling pathway, a defect of which result in T cell immunodeficiency disease:

- 1-ZAP-70
- 2- RAS
- 3-AP-1
- 4- LCK

not characteristic of late- phase reaction:

- 1- increased endothelial cell adhesion
- 2- leukocyte activation
- 3-mucus secretion
- 4- epithelial cell injury
- 5- increase thickness on the membrane

Q. immune complexes in tissues can be detected by:

- 1- enzyme linked immunosorbent technique
- 2-radioimmunoassay

3. direct immunofluorescence

which of the following is wrong about T cells in the thymus:

- 1- DP & DN cells found in the cortex
- 2- SP cells in the medulla
- 3- DP cells undergoes negative selection
- 4- in positive selection antigen presentation is done by thymic epithelial cells.
- 5- in negative selection antigen presentation is done by dendritic cells and macrophages

which of the following is not true about plasma cells:

- 1- short life span
- 2- basophilic cytoplasm
- 3- large non-staining golgi
- 4- secrete large quantity of Ig
- 5- increase the expression of Ig on their surface

which is wrong

>>>all the cells can process exogenous or endogenous peptides

the critical step in complement system activation:

- 1- C3 activation
- 2- c5b
- 3- MAC

which of the following can NOT increase autoimmunity:

- 1- release of sequestered antigens
- 2- neoantigens
- 3- cryptic epitope or spreading
- 4- decreasing IL-2 expression

about allogenic responses which is not true:

- 1- extraordinary strength
- 2- direct and indirect recognition of tissue antigen
- 3- direct recognition is only by CD4 cells and MHC II

which of the following is not true about tumor antigens

>>> a single specific mutation shared by all epitopes

all of the following are true about tumor vaccination except

- 1- vaccination with tumor-antigen pulsed dendritic cells
- 2- vaccination with DNA or transfected dendritic cell
- 3- vaccination with tumor antigen pulsed T reg cell
- 4- vaccination with tumor cells expressing costimulators or IL-2
- 5- vaccination with tumor cell expressing GM-CSF

primary immunodeficiency is characterized by all except:

- 1- mostly they are autosomal dominant inherited
- 2- undue susceptibility to infection
- 3- increase incidence of malignancy
- 4- male preponderance during childhood
- 5- mostly affect B cells

DiGeorge syndrome is characterized by all except:

- 1- facial changes
- 2- increase Candida infections
- 3- dwarf limbs

inability of cells to adhere to vascular endothelium and migration out of the intravascular compartment, is caused by the deficiency of:

>>> leukocyte adhesion molecules

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which of the following is not true about Rh system:

1. its protein in nature,
2. composed of more than 50 antigens with the same antigenicity

the best thing leads to its Ig diversity?

binding to infinite number of antigenic determinants.

which of the following blood groups have been never implicated in HDN and transfusion rxn:



>>> lewis system

which is not true about blood competent therapy:

- 1- leukocyte reduced RBC is the preferable to maintain adequate supply of oxygen
- 2- frozen platelets are kept refrigerated and used to stop bleeding or for established bleeding
- 3- fresh frozen plasma to treat coagulation factor deficiency
- 4- cryo used to treat hemophilia and as topical plug
- 5- fresh whole blood have no solid indications but not available

something about transplantation:

1. HLA typing doesnt cause a significant improvement in the long term function of the transplanted tissue
2. Long term rejection is not influenced by acute rejection

which is wrong about acute transplantation rejection ?

Preventable by precise HLA typing

all of the following contribute in t-cell's antigen recognition ..except :

- a-CD2
- B-CD3
- C-CD45
- d-CD4
- e-CD8

all about the structure of Ig true except :

kappa & lambda chains produced in equimolar concentrations

immunogenicity for an Ag can be enhanced by all of the following except :

- a. complexity
- b. host
- c. use of adjuvants
- d. increasing it's M.W
- e- large dose

multimerisation of IgM:

- 1- mediated by mu-4
- 2- is the responsibility of J chain
- 3- occurs extracellular



وَمَا تَوْفِيقِي إِلَّا بِاللَّهِ عَلَيْهِ تَوَكَّلْتُ وَإِلَيْهِ أُنِيبُ

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